Technology & Entrepreneurship

Most iGEM teams spend about half a year on their project and although many teams are able to obtain very interesting results, for most projects further research is required to make them publishable or to turn them in a functional real life application. To analyze what happened with the iGEM projects after the jamboree, we have asked the iGEM teams in our survey whether somebody continued with the results of the project after the Jamboree.

First of all, we have asked the iGEM teams whether the results are published in a peer-reviewed journal. Based on the answers it appears that a majority of 84,6% did not publish their results. Almost 4% of the responders were already able to publish their results in a peer-reviewed journal and another 11.5% was still working on a publication. This data shows that most of the projects are not directly publishable or that teams spend no time on it after the jamboree.

In the year 2013, iGEM started a collaboration with ACS Synthetic Biology. The idea was that iGEM teams would get a possibility to publish their results in a strong academic journal. However, it appeared to be, from a logistic point of view, too difficult to continue the collaboration. Currently, they have a collaboration with PLOS Collections for the foreseeable future. iGEM teams can submit an article to the iGEM Collection after which members of the PLOS and members of the iGEM community can review the publications. The reviews will be posted as comments on the website and all reviewers will be asked to sign their review. Submissions will undergo technical checks by PLOS staff prior to being posted. Currently, there are six teams that have used the possibility to publish their results in this way.

Although most teams did use the possibility to publish their results in the PLOS iGEM collection, we believe that this kind of indicatives are important to make the results of iGEM more public available. Currently, every iGEM team makes a Wiki about their project. This can often give interested people very extensive and detailed information about the project. However, it can also be difficult to find the information in which you are interested and if you are not specially looking for some information, it is unlikely that you will get in touch with the interesting projects. Therefore, we think that iGEM should find a way to make the results and projects more easily accessible.

One of the possibilities is to start an own journal. This could give iGEM the possibility to publish and show their most interesting projects. However, the aforementioned logistic problems, lack of time of the teams, or no publishable results could also be a problem when iGEM starts an own journal. One possibility to partly take away these problems, is to make writing a publishable article one of the possible gold medal requirements teams can meet. Teams that meet the requirements and receive a gold medal will then be published in the iGEM journal. This would give external parties an easy way to see what the results are from the ‘best’ iGEM projects.

Another option could be to make it obligatory for teams to write an abstract about their project. Those abstracts can then be bundled and published as well. To make this bundle with abstracts uncluttered, we advise to use a standard format for those abstracts. The use of standard formats will be discussed in more detail in the paragraph Community & Sharing.

When the results, after the iGEM project are not published, this not necessarily means that the results will remain unused after the jamboree. Sometimes the research continues after the jamboree. For example, the project can be used as a starting point for a thesis project or a PHD student could continue with the project as part of its own project. Therefore, we have asked iGEM teams if the project is used for another research. Based on the responses it appears that almost 35% of the projects are used for another research project after the jamboree. In a later stadium, iGEM projects will indirectly still be published in journals.

Sometimes results can also not been published because the goal is to patent them. Therefore, we have asked the teams in our survey if parts of the project are patented. It appears that almost 2% of the projects are patented and for another 4% of the projects, the team or an external party is working on a patent. From the teams that did not patent their project, more than 4% of the responders told that this was because of problems with intellectual properties. Another 13% of the responders indicated that work is done to patent the product, but that because of differing reasons it appeared to be impossible. From the teams that patent their results, one of the teams already used the project as a beginning for a start-up. This was the UCL team that also won the best supporting

entrepreneurship award.

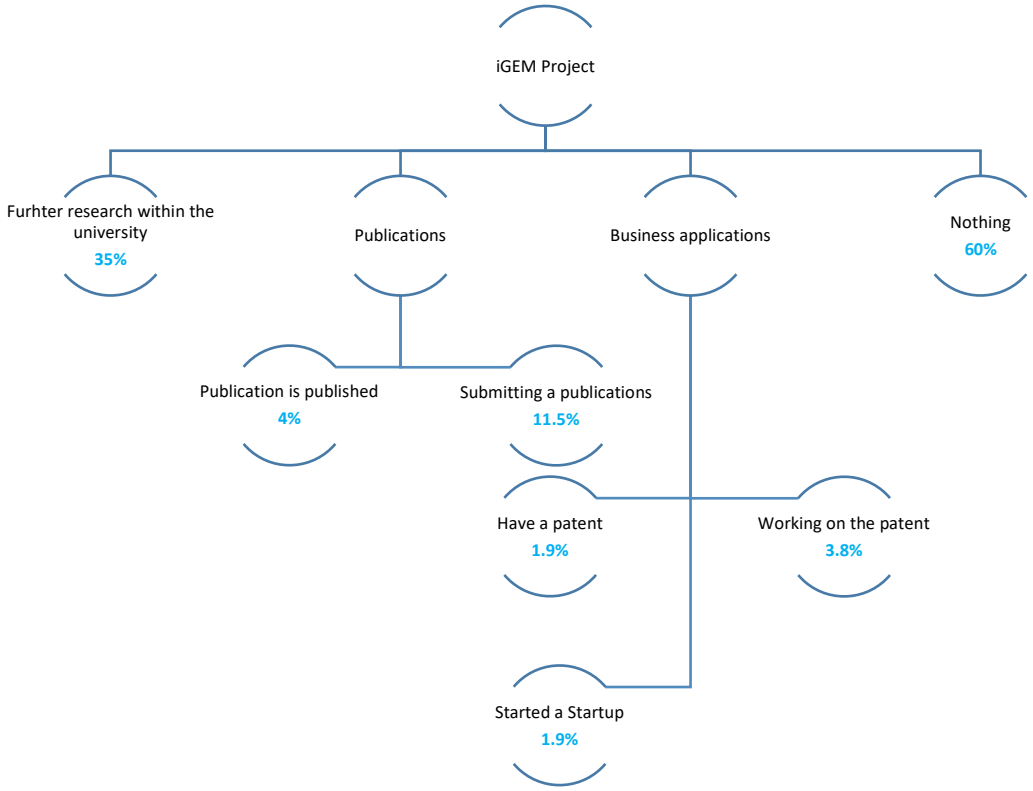

Figure 1: Summaries what happened with the iGEM projects after iGEM.